
MEDICAL ADVICE

TO THE CONSUMPTIVE

PEOPLE OF ENGLAND.

IF it should be asked, why I address myself to the Patient, rather than to the Physician, I answer, that, having offended the Doctor in my title-page, I presume he will give but little attention to my reasoning; for we listen very unfavourably to the advice of a man who begins by asserting, that we are *fundamentally wrong*. But with the Patient, the case is different: recollecting that consumptions, in the present mode of practice, are very rarely cured, he almost assents to the truth of my assertion, even before he has heard the arguments upon which it is founded. I speak, therefore, not immediately to the Physician, because I do not like that a man should turn his back on me when I am talking to him. If the Doctor chuses, whilst I am conversing with my Patient, to look another way, yet *squint* an ear to my babbling, he is very welcome; provided he will not condemn my
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practice, till he hath proved its futility by experience.

Now, though I write not directly to Medical Gentlemen, I esteem it nevertheless necessary to proceed methodically, and accordingly shall premise as much of the anatomical and physiological description of the lungs, as will be sufficient to enable those, who have not had a medical education, to comprehend my arguments. I shall then enquire into the predisposing and immediate causes of Consumptions; shall indicate the symptoms by which the patient may be certain of his disorder; and shall lastly proceed to consider the cure, upon rational principles.

The trunk of the human body is divided, by a membrane called the Diaphragm, into two distinct cavities, the lower of which is called the *abdomen*, or belly, and the upper, the *thorax*, or chest. The latter of these cavities contains the heart and the lungs. The lungs are divided into two principal lobes, which are inclosed in two distinct bags, formed by a membrane called the *pleura*; so that the right and left lobe of the lungs have not the least communication. The adhesion of these bags near the middle of the chest, forms a perpendicular membrane called the *mediastinum*; but receding from each other as they go lower down, they form a third bag, called the

the *pericardium*, which contains the heart: so that the chest is divided into three separate cavities.

The lungs are composed of blood vessels, air vessels, lymphatic or water vessels, nerves and cellular membrane.

The blood vessels are arteries and veins; but these are of two distinct kinds: the first receive and return the whole mass of blood, which circulates through the lungs, before it is thrown into the other parts of the body; and the second were intended only for the support and nourishment of the lungs themselves.

The air vessels are infinitely small branches continued from the wind-pipe, with which, in a sound state, they have a free communication, so as at every inspiration to be filled with air.

The lymphatic vessels are distributed on the surface of the lungs, and convey the lymph, which they imbibe, to a certain duct, whence it is returned to the mass of blood.

The nerves are exceeding small branches, which proceed chiefly from what is called the eighth pair.

The cellular membrane, which fills the intermediate parts between the vessels, is composed of fibres or *laminæ*, which are neither vascular, nor endowed with sensibility.

The *aspera arteria*, or wind-pipe, is that tube which conveys the air, passing through the mouth or nose, to and from the lungs. It is composed of alternate cartilaginous and fleshy rings, behind which are an infinite number of small glands, which supply the wind-pipe with a thin pellucid mucus lining its internal surface, which consists of a membrane of exquisite sensibility.

Thus much being premised, we shall now proceed to the office and utility of the lungs, which are necessary to be understood, before we speak of its diseases.

The organs of respiration are so indispensibly necessary to our existence, it is no wonder that physiologists should have taken uncommon pains to discover the real design of Nature in their formation. Various have been the conjectures of authors on this subject. Some have supposed, that the blood in passing through the lungs acquires its red colour; others have been of opinion, that the intention of respiration is to receive a certain quantity of air, which they imagined necessary to be mixed with the vital fluid; with many other suppositions equally without foundation. That Nature, by first circulating the blood through the lungs, after the reception of fresh chyle, intended some necessary preparation, may be concluded without farther examination; and that this preparation is effected by throwing
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ing off a certain quantity of noxious matter, imbibed by the air which is received by the lungs, seems evident from the experiments which prove that air, once saturated with this noxious matter, is unfit for respiration. The notion that animals, when confined to breathe the same air, die because the elasticity of the air is destroyed, is entirely without foundation; it being very easy to prove, that the elasticity of the air is not in the least diminished. The use therefore of respiration, is to relieve the body from a certain matter, perspirable only from the lungs, which, if entirely retained, is incompatible with existence, and, when retained in part, is productive of disease. It is separated from the blood by means of small ducts passing from the pulmonary arteries to the air vessels, where it is dissolved and carried off by the air. The existence of these ducts is easily demonstrated, by injecting almost any liquor into the pulmonary artery, which liquor may, without much difficulty, be made thus to fill the branches of the wind-pipe.

Supposing that we are now pretty well acquainted with the fabric and office of the lungs, we may, I think, with safety proceed to the more immediate object of our attempt.

The general predisposing causes of a consumption of the lungs are to be sought for in
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in the original formation of the body, the acrimony of the juices, or the age of the patient. As to the first of these causes, without reasoning about the matter, it is sufficient for our purpose to observe, that people of a slender and delicate frame, whose skin appears remarkably transparent, whose chest is flat and narrow, and shoulders high, are in general more subject to this disease than people of a contrary make; because, say the learned, the vessels of the lungs are, in such bodies, too fine, and too weak, to resist the impetus of the blood, flowing with great rapidity through the organ of respiration : a rupture of the vessels, a spitting of blood, &c. are the consequence. The same effects may be produced by an extraordinary acrimony in the fluids, which may corrode the vessels; and as to the third cause, it is attributed to the fervor of the blood, which is supposed to be greatest at the age when people are most liable to consumptions. To a sagacious reader, part of this reasoning will appear plausible, and part otherwise. But these are remote causes, which are equally applicable to all countries, and which do not in the least assist us in accounting for the peculiar consumptive propensity in the inhabitants of this island.

This propensity must be accounted for, not by any predisposition in the make of

our bodies, but by what is called a Pro-catarctic or occasional cause, namely, the instability of our climate, or rather its immediate effect, a Cold, to which, I am convinced, the frequency of Consumptions in this kingdom is chiefly to be attributed.

What is a cold, and what are its effects?

The questions are of importance; let us not, therefore, be too precipitate. Experience, our best instructor, hath taught us, that nothing is so detrimental to the human body, as sudden transitions from one extreme to another; but it is particularly true in regard to heat and cold. The natural effect of warm air is to relax the skin, consequently to open our pores, and consequently to increase our perspiration; an effect which may reasonably be supposed to take place equally in the lungs, as on the surface of the body. When the body, in this state, is suddenly exposed to a cold air, the consequence is an immediate spasm over its whole surface. The pores are obstinately closed, and the perspirable matter is gradually returned into the mass of blood.

That this perspirable matter is of an exceeding acrid nature, is evident from its effects. By irritating the vessels, it increases their oscillations, which, increasing the circulation, produces fever. Its acrimony appears even in the very first symptom of a Cold. The pores of the head have
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scarcely been closed a moment, before the perspirable matter, falling upon the membrane which lines the nose, causes, by its irritation, that convulsive motion which we call Sneezing. It returns upon the glands about the wind-pipe, and issuing thence excites another convulsive motion, called a Cough; which are different efforts of Nature to rid herself of the offending cause. In oozing down the wind-pipe, it destroys the mucus, therefore we are hoarse; and by inflaming the membrane which lines the *trachia*, occasions that sensation of soreness in the breast, which we feel in a few hours after taking cold. Thus continually descending, it enters the branches of air vessels, and diffusing itself to every part of the lungs, occasions the cough, which we so easily distinguish from that which proceeds from an irritation in the upper part of the wind-pipe, and which we call a Tickling cough.

We are not however to imagine, that this acrid lymph, which falls from above, is the sole cause of irritation in the lungs. On the contrary, it is more probable, that they are principally offended by the acrimony of that which issues from their own peculiar glands; for in severe colds, that is, when the obstruction of perspiration is almost universal, (for it is never entirely so) in such cases, I say, every humour in the
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body is contaminated; and that very mucus, which in health prevents irritation in the air vessels of the lungs, is now the principal cause.

Inflammation is the natural consequence of this continued irritation, which as naturally produces a superabundant secretion of mucus, and which, if not constantly spit up, suffocates the patient. When these symptoms are violent, the disease is called a Peripneumony: but if this inflammation continues beyond a certain time, the vessels are destroyed, and become dissolved in a kind of matter called *pus*.

Thus we are arrived at the immediate, or proximate, cause of a Consumption of the substance of the lungs. But here it may naturally be asked, how it happens, when a part of an organ, so indispensibly necessary to life, is destroyed, that the patient does not immediately die? I answer, that Nature, in this instance, has been particularly kind to us; for the two lobes of the lungs, having no communication, are not immediately affected by each other's diseases; besides, every minute branch of the same lobe is so contrived, as to perform its office independent of the rest; therefore every single vessel continues to receive and return its portion of air, till it be actually destroyed. Hence it is, that in dissecting of bodies which have died consumptive, we

frequently find a considerable part of the lungs entirely destroyed. Indeed the appearance of the lungs, in those who have died of this disease, is so various, that, though it may be but of one genus, the number of species are extremely numerous, if we may conclude from the diversity of phenomena upon dissection. Sometimes we find a texture of a part of the lungs entirely destroyed, and nothing but a collection of purulent matter in its place, communicating with the wind-pipe, so as to fill it on laying the head downward. At other times we discover a quantity of matter inclosed in a kind of bag. Sometimes this matter is contained in a number of small follicles, and at others, it may be squeezed from every part, and the texture of the lungs but little injured. In some cases, we find a number of small hard lumps; in others, large indurations, and sometimes tumours that are absolutely cancerous. In short, as I have before observed, the variety of appearances is infinite, especially if we include colour.

However, notwithstanding this great diversity, the proximate cause of that species of Consumption which is so frequent, and so fatal, in this kingdom, is an ulcer in the lungs, in consequence of inflammation, occasioned by a cold, or, in other words, by a greater flux of acrid perspirable matter to
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the lungs, than can be absorbed and carried off by the air. It is also possible, that a part of this matter may be confined near the extremities of the air vessels, by a spasmodic constriction in the upper part, occasioned by the sudden admission of cold air. When this is the case, an inclosed ulcer, or *vomica*, is the consequence.

Having proceeded thus far in the consideration of our subject, and, I think, without straining our text, we are now naturally led from the *cause*, to the *cure* of our disease. And first it may not be amiss to enquire a little into the foundation of the general practice.

The first thought, which naturally occurs, is, that this general practice is generally unsuccessful; and we thence as naturally conclude, that it must be fundamentally wrong.

If the inflammation be violent, comparing it with inflammations in other parts of the body, and reasoning from analogy, the first thing we do is to bleed; and so far we are right, as, by lessening the quantity of blood, we lessen the impetus of the remaining part, and thereby retard the progress of the disease for a time: but alas! the time is very short: the pulse soon recovers its velocity and strength. Well; but then we administer a quantity of saccharine, oily and mucilaginous medicines, in the form
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of an emulsion, or otherwise, intending, no doubt, thereby to sheathe and obtund the acrimony which causes the irritation in the lungs. The intention is certainly laudable; but it happens unfortunately that these balsamics go down, not into the lungs, but into the stomach, where they immediately undergo such a change, as to carry but little of their balsamic qualities even into the intestines, where they are still farther mixed and adulterated, particularly by the addition of a certain quantity of bile, immediately on quitting the stomach.

But to proceed. Let us suppose these demulcents already in the intestines. What becomes of them? They must either be received by the lacteal vessels, or pass off *per anum*; the latter of which is the way chosen by the greatest part of them, contrary to the intention of the physician. Happily for mankind, these lacteal vessels are endowed with a kind of mechanical sagacity, which enables them to select from that heterogeneous mass of food and medicines, constantly presented to them by the stomach, such matter only, under the denomination of chyle, as is fit to be assimilated with the blood.

Here I shall be interrupted with an objection, that the lacteals are capable of admitting poisonous matter, and conveying it to the heart, to the immediate destruction
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of the body. To this objection (having first hinted, that most poisons are destructive from their immediate action on the nerves in the stomach) I answer, that Nature acts, not by partial, but by general laws. Those who are incapable of applying this argument, deserve no other reply.

Let us now suppose, that a small portion of our balsamics has gained admittance through the mouths of the lacteals. Thence it is conveyed into the glands of the mesentery, and having been secerned through several of these, it rises into a certain receptacle whence it is conducted into a vein under the left arm, and thus mixes with the blood. It now soon reaches the heart, and from thence thus mingled with blood, it passes through the lungs. I say *through* the lungs; because it is immediately returned to the heart, thence to be distributed through the rest of the body.

Now it must be remembered, that the seat of the disorder which, by these healing medicines, we are endeavouring to cure, is not in the blood vessels, but in the air vessels of the lungs; and that these air vessels have no communication with the arteries, except by means of tubes or pores so extremely small, as not to admit the red globules of the blood; consequently the constituent particles of our medicine must be smaller than these, otherwise no part of
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it can possibly be thus applied to the part injured. But we have said, that a liquor may, by injection through the pulmonary artery, be forced into the *bronchia*: true; but this liquor passes colourless, always depositing in its passage the matter with which it was tinged.

These things being properly considered, let me now ask the reader, whether he thinks it probable, that even the least benefit can rationally be expected from saccharine, oily, mucilaginous, or balsamic medicines thus applied?

What then is to be done? Has Nature been so unkind, particularly to the inhabitants of this island, as to afflict us with a disease for which there is no remedy? I verily believe she has not been so unkind. The fault is not in Nature, but in ourselves; or, perhaps, rather in the difficulty of the task: for we cannot suppose, in the present improved state of chemistry and anatomy, that all thinking men are not perfectly sensible of the improbability, I had almost said impossibility, of applying demulcents to the lungs through the alimentary canal: nor is it more reasonable to suppose them forgetful, that the only possible way of applying medicines directly to the lungs, is through the wind-pipe. But, as I have before observed, they have been prevented from attempting

tempting this obvious method, by the difficulties which occurred in the execution.

To convey any palpable solid or liquid substance through the wind-pipe into the lungs, we know to be impossible; for that, if the least crumb of bread, or drop of any liquor, happens by accident to enter the *glottis*, a violent cough is immediately excited, till the offending matter be rejected. But we also know, that impalpable volatile matter is incessantly carried to and from the lungs, along with the air; every substance therefore that can be volatilized, may be conveyed directly to the lungs. Aqueous liquors may be easily converted into vapour, and vapour may be impregnated with great variety of medicinal substances.

On these considerations, it should now seem, that the whole mystery is at once discovered, and that we have nothing more to do, than to convert our proper medicines into vapour, and so convey them directly to the diseased part. Alas! there are many considerable obstacles yet to surmount, as will appear from a chemical view of the medicines in question.

Let us suppose, that our patient, having caught a severe cold, labours under an inflammation of that membrane or skin which is continued from the mouth, down the wind-pipe, into the *bronchia*; and that this inflam-

inflammation is chiefly in the lungs. Or let us suppose, that the irritating matter is not sufficiently acrid to produce much inflammation, but only a superabundant secretion of acrid mucus. Or, let us farther suppose, that the lungs are actually ulcerated. In these several stages, or degrees of the disorder, what are the indications?

Our endeavours to restore the obstructed perspiration, are undoubtedly rational; but our medicines, given with this intention, commonly fail. They excite indeed a copious sweat; but the fluid thus determined to the surface of the body, is totally different from that volatile matter which, in a sound state, exhales particularly from the lungs, and to the diminution of which exhalation, the disease in question is solely to be attributed. But what is the present danger? It is, that the inflammation may end in suppuration; or that the acrid matter may be obstructed by mucus, or spasm, and so corrode, indurate, or destroy the substance of the lungs. The immediate indication therefore is, if possible, to prevent these consequences; which I presume can only be effected by the application of antiseptic, (that is, medicines which resist putrefaction) antispasmodic, attenuating, and balsamic medicines, directly to the part affected.

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With regard to the first, *viz.* antiseptics, there is no difficulty, the most powerful of them (I speak from experience) being in their nature volatile. Antispasmodics and attenuants are equally easy of conveyance; so that the sole difficulty lies in our balsamic medicines, which are very refractory, but of great importance.

Gums, mucilages, and expressed oils, are by no means volatile: nor would I, in the present case, give one farthing to find them otherwise; as they would, at any rate, be totally unfit for our present purpose. Our whole attention therefore is fixed on the resinous native balsams, but not indiscriminately. Those who have bestowed so much attention on them as myself will find them extremely different in their chemical properties and effects on the human body. Besides, they are rarely to be met with genuine; and a thorough knowledge of them is only to be acquired by long experience and frequent examination.

The chief of the liquid balsams are, Balsam of Gilead, of Copaiba, of Peru, of Tolu, of Canada; and the dry balsams are Benjoine, Storax, Labdanum, Myrrh and Mastich, and the Terpentines. But though these several substances are much alike in their chemical properties, yet they differ essentially in their medical virtues; which is easily accounted for, from the difference in

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quantity and quality of the etherial oil which they contain.

The chemical properties, as far as they are commonly known, of these fragrant resins or balsams, are, that they are inflammable, dissoluble in rectified spirits, but not in water. Now, this being the case, supposing, even after a thousand experiments, that we have fixed upon those whose oils are least acrid, and which, in every respect, are best fitted for our purpose, how shall we possibly contrive to convey them to the lungs in a proper vehicle? They will not dissolve in water, and the vapour of spirit of wine is much too ardent and inflammatory.

If indeed we had remained satisfied with these general properties, without farther enquiry, we should still have believed, with our neighbours, that the attempt was impracticable; that it was impossible to apply an efficacious remedy directly to the lungs, and consequently that consumptions were incurable.

Ever since I was capable of enquiry, it hath been a constant maxim with me to take nothing for granted upon any authority whatsoever. Upon this principle, I began my experimental disquisitions relative to the subject in question, being fully persuaded, for reasons which will hereafter appear, that if I could find means to convey

vey the best of these native fragrant balsams to the lungs in a mild and truly balsamic state, the consumptive people of this island might expect considerable benefit from my success.

Were I to relate the many fruitless experiments I have made since I first engaged in this enquiry, the reader would be surprized at my patience and perseverance; but it would answer no other purpose. Let it suffice therefore to tell him, that I, at last, hit upon a certain chemical liquor, which, to my great astonishment, dissolved at least double the quantity of the balsamic resins which I had selected, to any menstruum which I had ever tried or heard of. The pleasure I felt upon this discovery can only be conceived by those who have had the happiness to extend, in any degree, the path of knowledge. It immediately occurred to me, that the discovery of so powerful a menstruum would not only be a considerable step in my present pursuit, but might probably prove of singular advantage to medicine in general. But what added greatly to my expectations was, that this liquor happens to be of exceeding volatility, not at all inflammatory, and remarkably antiseptic and antispasmodic.

Thus far I had obtained every thing that I could wish. My solution, however, was too strong for the purpose I intended.

I therefore, by way of experiment, dropped a few drops of it into boiling water, and found, beyond all possibility of a doubt, that the steam was richly impregnated, both with the antispasmodic and antiseptic qualities of the menstruum, and also with the balsamic and salubrious principles of the fragrant resins. This vapour I drew in with my breath, for a considerable time, and found it not in the least irritating; but, on the contrary, extremely mild and agreeable. Being now desirous to ascertain the quantity of the dissolved resins, which thus rose with the vapour, I poured half an ounce of my solution into a quantity of hot water, and after evaporating the whole I found remaining in the vessel a very small proportion of the weight of balsam which had been dissolved in that quantity, and consequently by much the greatest part had risen with the vapour.

Let me now ask the reader, whether he is not of opinion, that the happiest effects may rationally be expected from such a medicine thus applied, by means of the steam of hot water, directly to the injured lungs? Whether he does not think it probable, that the acrimony of the irritating fluid will be thus obtunded, either in a recent cold, or more advanced state of the disease? Whether the spasmodic constriction of the vessels will not thus be relaxed,
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and the consequence of obstructions prevented? Whether the progress of putrefaction may not thus be stopped; and whether, in that case, even in the advanced stage of a consumption, we may not hope for a cure?

When a considerable part of the substance of both lobes of the lungs is destroyed, the disease is doubtless incurable; but we know from dissection, that commonly one lobe only is principally affected. If therefore we can thus stop the progress of putrefaction in the diseased lobe, the other may continue to perform its office, and the patient suffer but little inconveniency.

There remains yet another argument in favour of this new method of application, which, I think, will appear to be a powerful one. We know that many people, who have been far gone in a consumption, have recovered by removing to happier climates. We cannot rationally attribute their recovery to any other cause than a difference in the air they breathe, which difference must arise from its being impregnated with certain salubrious, antiseptic, or balsamic *effluvia*. Since therefore this natural application of salutiferous air to the part affected will produce that which medicines taken into the stomach had attempted in vain, are we not thereby naturally led to conclude, that the best way
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of administering to the lungs is by means of the air? It were ridiculous to attribute the recovery of consumptive people, on their migration to a milder climate, merely to increase of heat, which might be increased to any degree in the patient's chamber at home. On the contrary, we know that heat remarkably accelerates putrefaction; so that in a putrid state of the lungs, if it were not for some powerful counter-acting cause, the disease, by travelling southward, must necessarily be increased.

With regard to the manner of applying this medicine, it is extremely easy. I usually drop 30 or 40 drops into about half a pint of boiling water immediately after it is taken from the fire, ordering the patient to hold his mouth over the vessel, so as to draw in with his breath as much as possible of the vapour, continuing the operation as long as the steam will rise. I then order him to drink the water as soon as it is cold enough for that purpose: for, though I depend entirely on the vapour for the cure of the lungs, yet, as all the juices in the body may be in some degree affected by the matter absorbed from the lungs, this balsamic water, received into the stomach, will be of some advantage.

This simple method of application will be abundantly sufficient in common colds, hoarseness, &c. but when there is reason
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to suspect, that the lungs are dangerously affected, and that the disease is actually verging towards a consumption, a more copious application is necessary. For this purpose I have contrived a simple machine, by means of which a much greater quantity of the balsamic *effluvium* is received into the lungs. The figure of this vessel may be seen in the plate facing the title-page. It holds about a pint. Half a pint of boiling water must be poured in, and the medicine immediately dropped into the water. The head being then fixed upon it, the patient applies his mouth to the pipe, and thus draws in the steam with his breath, removing the pipe from his lips at every expiration. The vessel is made of pewter. Those who are acquainted with the nature of evaporation will not be at a loss to account for the conic form of the vessel.

The reader now naturally expects, that I should tell him the ingredients and manner of preparing the medicine ; otherwise, he is determined to pronounce me a quack, and, notwithstanding all I have said, to believe that my book is intended merely to promote the sale of a medicine for my own emolument. I must intreat him, however, to hear the reasons which have determined me to keep this preparation a secret.

Give me leave to suppose for a moment, that this medicine, thus applied, may be
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of infinite service to a considerable number of people in this kingdom. If I were to make it public, so as that it might be prepared by every apothecary in the nation, what would be the consequence? The consequence would be, that, notwithstanding its excellence, it would be neglected, and a number of people thereby deprived of a benefit which, so long as it remains a secret, they may reasonably expect; nothing being more certain, than that mankind naturally despise those things which are commonly known, and too easily obtained. Of this truth I could produce a thousand examples. Some of the best medicines that ever were contrived have sunk into oblivion, for no other reason than because their composition was made known. Does any one believe that Dr. James's powder would have been so universally beneficial, if he had published his secret to the world?

If this answer be thought insufficient, I confess that I have no better to give. With regard to the medicine in question, I think I have said enough to convince the patient, that his hopes of relief from its effects are rationally founded; and that, though it will not perform miracles, he may nevertheless expect from its balsamic quality, that it will destroy the acrimony of the irritating fluid; from its attenuating and antispasmodic principles, that it will remove obstructions;

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and from its antiseptic power, that it will prevent putrefaction, or stop its progress when begun, and thus preserve the sound part of the lungs, and give an opportunity to nature to regenerate the parts that were already destroyed.

What! says the sagacious reader, do you imagine, if a part of the lungs be actually destroyed, that it can ever be restored?---Sir, it is a maxim with me, never to affirm any thing which I cannot prove; but I know no reason why nature should not as easily restore a part of the lungs as a part of an external muscle, or a part of the external skin, which is continued into the lungs, and which is as vascular as the lungs themselves.

I shall now beg leave to add a few words concerning the diet, &c. of consumptive people; for, though our opinion of a medicine be ever so great, it were certainly imprudent to neglect such other means as may contribute to its success; and indeed, if the disease be far advanced, little is to be expected from any medicine whatsoever, unless the patient will adhere implicitly to the rules prescribed by his physician, relative to his diet and manner of living.

First, with regard to exercise. Our immortal Sydenham was so strongly prepossessed in favour of riding on horse-back, that he constantly recommended that exer-

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cise in every stage of a consumption. It is, however, with this, as with most efficacious medicines; if it does no good, it certainly does harm! The patient himself will be able to determine whether its effects be salutary or otherwise, by observing the following directions. First, unless the weather be hot, let his clothing be somewhat warmer than usual, as he will otherwise grow chilly. Let him ride not more than an hour at a time, and that very gently. If it be in spring or autumn, he must ride from eleven to twelve, or from twelve to one. If in the hotter months, let it be from nine to ten in the morning. But in moist or cold weather let him not ride at all. If, after this gentle exercise, he find himself in better spirits, his appetite increased, his breathing easy, and his skin cool and soft, he may certainly conclude that riding is of service to him, and ought therefore to be continued as often as the weather will permit. If, on the contrary, he find himself fatigued, his breathing more frequent and more difficult, his skin parched and dry, the palms of his hands hot, his cheeks flushed, his tongue dry, and in himself an inclination to drink rather than eat, he may then conclude that riding is improper in the present state of his disorder, and that taking the air in a carriage will have better effects. If nevertheless

theless he find no alteration for the better, I advise him, by all means, to have recourse to a sea voyage, from which, with the continuance of the medicine here recommended, I venture to promise him every thing that human art can possibly supply. It may not be improper to observe, that though I have above, in speaking of riding, limited the patient to an hour at a time, I mean that, in proportion to his increase of strength, and benefit received, the time should be prolonged, and the degree of exercise augmented.

We come now to aliment, which is of infinite importance. The first general rule which I give to my consumptive patients is, that, regardless of all stated hours, he is to eat as often as he has an appetite, but never much at a time. If, when he rises in a morning, he find no appetite for his breakfast, let him walk a little into the air, and wait an hour or two before he takes any food. As to tea, I absolutely forbid it, because it is an enemy to weak nerves, but more especially on account of the warm water, which greatly relaxes the stomach. A sea biscuit with a pint of cold almond milk, made with barley water or whey, is a good breakfast for a consumptive person; or a few almonds blanch'd and ground in a mortar with a little cold water, and then mixed, by little at a time, with two

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thirds of milk from the cow, is still better, where more nourishment is required. This admixture of almonds renders the curd, which separates in the stomach, much less tenacious, and easier of digestion. I mention cows milk, because it is most easily obtained; otherwise, asses milk is certainly preferable, because it contains much less of curd, which is both difficult of digestion, and putrescent. Goat's milk contains even a greater proportion of curd than cows milk, and is therefore highly improper, though frequently prescribed.

Eggs are by no means to be allowed, on account of their putrefactive tendency. In short, animal food is in general to be avoided; though, if the patient be weak, I allow a little boiled white meat once or twice a week, and now and then a little veal or chicken broth, with a small quantity of lemon juice squeezed into it. Potatoes, turnips, carrots, parsneps, beans, spinach, broccoli, fallets, bread and rice, constitute our general bill of fare.

As to drink, if the patient has much hectic fever, I confine him entirely to almond milk, barley water, or milk and water; otherwise, besides these, he is permitted to drink one or two glasses of mountain wine every day; or, in case that cannot be afforded, now and then a draught of ale, porter, or table beer.

If the patient complain of a nausea, weight, or uneasiness at his stomach, order him ten grains of Ipecacoanha, with chamomile tea, to be repeated once in ten days, or a fortnight, if the symptoms return.

With regard to bleeding, as I expect nothing more from it than a little present relief, I never order it, unless when the fever runs too high, and then I seldom exceed five ounces.

If the patient be costive, I order him a solution of manna, with a little soluble tartar; if the contrary, I give him occasionally a few drops of the Thebaic tincture in a little simple cinnamon water.

If he sweat towards morning, which is often the case, I order him to go to bed in good time, to rise very early, and to repose a little after dinner. If his sweat still continue, I give him 20 or 30 drops of the acid elixir of vitriol in a glass of cold water twice a day. As to the Peruvian bark on this occasion, I believe it to be an excellent medicine; but I dislike it in substance for many reasons, and am no less dissatisfied with all the known preparations of it. I have lately begun a course of tedious experiments, with an intention to discover the parts in which its virtues actually reside, and to divest it of those which are inert. If I am not much mistaken in
my

my conjectures, it is possible to condense its active principles into a very small compass, and thereby to render it a much more agreeable and efficacious medicine. If I succeed, possibly the public may in some future time expect to be made acquainted with the result of my enquiries.

There remains yet one piece of advice, to which the patient, if he regard his own safety, will be particularly attentive. It concerns the position of his body. Consumptive people, from an indolence peculiar to their disorder, are very apt, whether sitting, walking, or riding, to suffer the body to bend forward, for want of a proper exertion of those muscles by which it should be kept erect. In this drooping position the chest is never sufficiently enlarged, nor the lungs fully expanded. I therefore constantly advise my patients to keep themselves upright, and, especially when in the open air, to endeavour to bring their breast as forward as possible. In this, my intention is, to expand the small ramifications of the *bronchus* to their extremities, and to open a free passage for the blood from and to the heart; both which will assist our endeavours to remove obstructions, and prevent those adhesions of the lungs to the *pleura* which are generally found on dissection of consumptive bodies *.

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* See Morgagni, de Sedib. & Causis Morborum,

My asthmatic patients, no doubt, begin to think me tedious, or rather imagine that I have quite forgot them. That, however, is not the case. By an asthma we mean that disorder, the chief symptom of which is a difficulty of breathing. It is either continued, or by fits. Now, though the cause of this disease is frequently in the lungs, yet it is sometimes owing to a morbid affection of some of the other organs of respiration, as the diaphragm, the intercostal muscles, or the wind-pipe, or some of the neighbouring *viscera*. How it happens that the balsamic medicines, which are recommended as a cure for consumptions, are at the same time recommended in asthmatic complaints, is amazing, and must proceed either from a consummate ignorance, or unpardonable dishonesty. If, as we have seen above, these balsamics, taken into the stomach, can do nothing towards the cure of a consumption, how much less likely are they to relieve an asthmatic patient? For if they could even be applied immediately to the part affected, they possess no one virtue that might authorize such expectation.

Hold! cries the reader, if that be the case, how comes it that you recommend your balsamic vapour for the cure of an asthma? I answer, that unless the asthma be a symptom of a consumption, I expect
no

no advantage from the balsamic quality of this vapour. But when the cause of the asthma is a spasmodic contraction of the lungs, or wind-pipe, which is very frequently the case, especially when the disease returns by fits, I then expect considerable advantage from the antispasmodic power of this vapour; and when in a continued difficulty of breathing the cause of the disorder is an infarction of the lungs from viscid mucus, my hopes are then built on the attenuating power of the vapour exhibited in the manner I recommend. Let those who are capable of reasoning judge whether my expectations are well founded.

I have said, that the peculiar consumptive disposition observable in the people of this kingdom is to be attributed to the instability of our climate, which renders us so frequently liable to take cold. Now, as it is always better to prevent a disorder than to cure it, and as colds do no injury to the lungs, except in their remote effects, I thought it rational to suppose, if immediately after taking cold I could dilute or obtund the acrimony of the humour which irritates and inflames the lungs, I should probably prevent the bad consequences of obstructed perspiration, at least as far as it concerned the lungs. Having myself lately taken a violent cold, I immediately began to use the balsamic vapour, by holding

ing my head over a common pint vessel, keeping my mouth generally shut, that the steam might pass through my nose, and repeating the operation several times a day, for two or three days. The consequence of this was, that I very soon got rid of my cold, without the least cough or difficulty of breathing; which was really a remarkable circumstance, because my lungs are naturally so irritable, that I hardly remember ever to have had the least degree of cold which did not end in a cough. This, however, is but a single experiment; but I have another of greater weight.

Having founded my expectations, in the cure of consumptions which are far advanced, chiefly on the antiseptic quality of this *Æther*, in order to try its power, I suspended from two nails, at the distance of about four feet from each other, two pieces of fresh beef. Under one of these I held a vessel of hot water, into which fifteen drops of the medicine were dropped, repeating the operation three or four times every day, and continuing it about five minutes each time. To the other piece nothing was applied. I carefully examined each piece every day, and was greatly surprised to find, at the expiration of a month, that neither of them was, in the least, tainted or discoloured. That the piece to which the vapour was applied

continued sweet did not at all surprise me; but I own, I did not expect, that the antiseptic power of this vapour was so great, as to prevent putrefaction in the other piece of beef, by only mixing with the air in the room. Indeed the room was small. This unexpected event, however, gave me great pleasure, as it immediately suggested to me the evident advantage that might be expected, in all putrid disorders, from impregnating the air in the chamber with this vapour. For this purpose, it is my constant practice to order 30 or 40 drops to be dropped into a quart of boiling water, and the vessel to be placed near the bed of the patient, to be repeated three or four times a day; or the water to be kept boiling over a lamp, in any part of the room, till it is entirely evaporated, if the disorder be of a very putrid nature, and especially in the small-pox. It were certainly needless to mention the use of this vapour in sore throats, whether inflammatory or putrid.

The medicine is entitled *Dr. Stern's Balsamic Æther*, and may be had, for six shillings the bottle, of Mr. ALMON, in Piccadilly, Mr. COOK, near the Royal Exchange, Mr. BLADON, in Pater-noster Row, Messrs. CURTIS, in Fleet-street, Mr. WOODFALL, Charing Cross, and Mr. WHITE, Lincoln's Inn Fields, Booksellers.

I shall

I shall now, by way of conclusion, beg leave to give a few general rules to the reader, which may enable him to judge properly of medicines which are exposed to sale. These rules seem the more necessary, in an age when almost every week produces a new medicine.

The *first* general rule is, never to pay the least regard to the canting of those who pretend, that the good of mankind is their sole motive for offering their medicine to sale.

Secondly, disregard all assertions concerning the excellency of a medicine, which are mere assertions, without any foundation in reason and experiment.

Thirdly, conclude the advertiser to be either a knave, or a fool in physic, who pretends, that his medicine will cure several disorders which have not the least analogy to each other.

And *lastly*, when the doctor writes a pamphlet, with an intention to recommend his medicine, if it betray a manifest ignorance of his subject, of style, and grammar; in short, when his language is evidently that of a porter; conclude him to be some illiterate, ignorant person, whose medicine and opinions deserve no attention.

Concerning myself, and the medicine I recommend, I do not expect, that the reader should have any dependance on what I
may

may have asserted in the preceding pages ; because, if he has any knowledge of mankind, he has reason to suppose that I have sacrificed truth to interest and a favourite hypothesis. My assertions however are very few, except what relates to the experiment to prove the antiseptic quality of this vapour ; but as it is in every one's power to repeat the experiment, it will be an easy matter to convict me of falsehood, or confirm the truth. All I expect of the reader is, that he will impartially consider the reasons upon which I have founded my expectations of curing disorders of the lungs by means of this balsamic vapour. If he be of opinion, that I have reasoned justly, he will certainly think it adviseable for those whose lungs are injured to try the experiment, especially as it cannot possibly be attended with any danger ; and as to the expence, it will certainly be thought most inconsiderable, when compared with the fees of a physician, and the bills of an apothecary.

F I N I S.

A P P E N D I X

T O

Dr. STERN'S MEDICAL ADVICE.

T O T H E

Consumptive and Asthmatic People of England.

MY opinion concerning the diseases of the lungs, as contained in the foregoing treatise, having been favourably received, I think it my duty to corroborate that opinion by a few additional considerations ; and to lay before the public the reasons which first induced me to depart from the usual method in my treatment of consumptive and asthmatic patients.

A consumption of the lungs being peculiarly fatal to the inhabitants of this island, I became, early in life, uncommonly attentive to that disorder. I saw with regret, from numberless examples, that of all the diseases which afflict mankind, this seemed to be least in the power of the medical art ; inasmuch, that I do not remember ever to have seen a single instance of a consumptive person

person cured by the usual method of practice, even by the most skilful physicians. This naturally led me to conclude, that the means were inadequate to the end proposed. And indeed, when I began to consider the structure of the human body, and the seat of the disorder, it soon appeared to be almost as rational to expect to cure a consumption by clyster, as by means of medicines taken into the stomach.

In consulting a variety of authors on this subject, I found some of them of my opinion; particularly our celebrated Dr. Mead, who in his *Monita & Præcepta Medica*, speaking of the slow or hectic fever, expresses himself to this effect: “ Balsams are in some
 “ cases most useful, in order to obtund and
 “ correct the acrid and saline humours:
 “ These balsams are to be sprinkled upon
 “ live coals, and the vapour received into
 “ the lungs, by means of a tube adapted to
 “ the purpose. This medicine, I know, is
 “ generally thought to be of little utility, and
 “ is therefore neglected; but if we consider
 “ the long journey by which medicines taken
 “ into the stomach are conveyed to the
 “ lungs, and how small a quantity of these
 “ medicines can possibly reach the part for
 “ which they are intended, we cannot but
 “ be sensible that the method here proposed
 “ is most likely to answer the end.” In this
 passage

passage the Doctor refers to the *Theatrum Tabidorum* of Christopher Benedictus.

In a German book, entitled Medical and Chirurgical Observations, by F. H. L. Myzel, published at Berlin in 1754, I met with the following case. The Doctor, from a variety of symptoms, concluding that his patient had a purulent *vomica* in the substance of his lungs, ordered a repetition of stimulating medicines, which in the end produced a rupture of the *vomica*, and discharge of the purulent matter. The breath of the patient, after this discharge, became insupportably offensive. If the Doctor had in this case proceeded in the usual method, he would have ordered a quantity of balsamics to be taken in the common manner; but, with greater sagacity, he thought of putting a stop to the putrefaction by means of vapour conveyed immediately to the part affected. With this intent, he ordered a vessel, narrower at the top, to be filled with a pectoral decoction, with the addition of half an ounce of oil of turpentine. This vessel he immersed in boiling water, and caused the patient to draw in the vapour with his breath four times a day. In two days his breath became much less offensive, the matter which he spit was of a better colour, and his appetite returned; and in the space of six weeks his cough ceased, together with all his complaints.

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There can be no sufficient reason to doubt the veracity of the author: we must therefore allow this to be an instance of putrefaction being stopped, and an ulcer in the lungs perfectly cured; which I verily believe is more than can be produced in favour of any medicine taken in the common way.

Many other medical writers of sufficient authority have recommended the application of the native balsams immediately to the lungs; but I think they have all been mistaken in the mode of exhibition. The fumes of these balsams, when sprinkled upon live coals, are extremely acrid, and very unfit for the purpose intended; whereas, in the method I have advised, they are conveyed to the part affected, in a dilute and mild state, by means of an exceeding volatile fluid, which in itself possesses great virtues perfectly adapted to the cure of the disease in question. But besides the native balsams, the medicine which I recommend to the public contains the resin of a certain substance which I have found to be the most powerful resister of putrefaction in nature. For this reason in particular, I strenuously advise not only those who are consumptively inclined, but all those who are afflicted with any putrid disorder, such as malignant fevers, putrid sore throats, small pox, &c. to use this *Æther* frequently, and moreover to impregnate the air in the room,
by

by pouring a little of it into a vessel of boiling water, kept boiling by means of a spirit-lamp. This will not only conduce greatly to the cure of the patient, but will secure those, who are obliged to attend the sick, from infection. If any one doubts the effect, let him try the experiment, and convince himself.

Some time ago I received the following letter:

Hot Wells, Bristol, Aug. 24, 1767.

As this is the place where multitudes of asthmatic and consumptive people are sent for relief, great enquiry is made after the treatise lately published by Dr. Sterne, as also for his balsamic æther, and the pewter vessel in which it is to be evaporated; but none of the booksellers, or any of the physical people here, except one, seem to know any thing of it. It is therefore recommended to Mr. Almon to send down by the next machine a quantity of all the above articles, and to advertise their being had at the several booksellers at Bath, as well as at this place, it being imagined he might dispose of three times the quantity here in a season that he can at London, especially if he has the title page of the book stuck up at the Hot Wells, and at all the other usual places where new performances generally make their first appearance; and the vessels ought to be sold where the medicines are to be had. Dr. D———, a physician of great eminence here,

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who

who has read the treatise, seems to think the use of your balsamic æther no ways incompatible with the waters of this place.

In answer to this anonymous epistle I inserted an advertisement in the St. James's Chronicle, intimating, that if the author would be so kind as to recommend a person proper to be intrusted, a number of the pamphlets and medicine should be sent down. Now whether he ever saw the advertisement I cannot tell; but I heard no more from him. I am, however, much obliged to him for his information.

Some people having objected to the expence of the machine recommended for the more convenient and effectual exhibition of the Balsamic Æther, I take this method of informing them, that the medicine may be used with sufficient benefit by means of any common vessel which is narrow at the top, it being very easy to inhale a considerable quantity of vapour by that means. To those, however, who can afford it, I still recommend the urn, provided the extremity of the tube be so wide as to admit the end of the little finger. I mention this, because several of those which I have seen have been too small.

It may not be improper likewise to inform those whose disorder is of long standing,
that

that they are not to expect a miraculous cure from a negligent or discontinued use of this medicine. No: I expect that they should repeat it at least three or four times every day, and continue it at least six weeks or two months. If after all it should prove ineffectual, and the case be a confirmed consumption, let them by all means try a six-weeks voyage to sea. But they must not on any account neglect the rules of diet laid down in the pamphlet to which this is an appendix.



S I R,

Bristol, Dec. 17, 1768.

I RECEIVED your's of the 6th instant, a copy of which I thought proper to send Mr. Sherman, the gentleman who applied to me about the Æther. I received his answer, which, with his former letter, I have here sent you, to make what use of them you think proper.

I am, Sir,

Your humble servant,

THOMAS CADELL,

S I R,

I HOPE, and make no doubt but you will excuse my troubling you with this. My reason for so doing is, I am afflicted with a very bad asthma. In May and June last, I was at the Hot Wells, Bristol, to try if the waters would be of any service to me. They certainly were, with the assistance of that famous physician Dr. Renaudet. A few days before I left the Wells, I was advised by an acquaintance to try Dr. Stern's Æther. Accordingly I went to your house, and purchased two phials of the Æther, and several other things in your business at the same time. Finding I received great bene-
fit.

fit, in a short time afterwards, I sent for two more phials. They differed in respect to colour about three or four shades ; but that I did not so much mind: now again I sent for two more, by one of the coachmen belonging to the machines ; and they differ from each other so much, that one looks like fine sweet oil, the other like the deepest vinegar : therefore I shall esteem it a great favour if you will oblige me with a letter, to inform me with the meaning why there should be that difference ; otherwise I must return them, being fearful they may be counterfeited before they come to your hands. I should by no means have troubled you, had I known whom to apply to, besides the gentleman of whom I bought them. If it will not try your patience too much, I think it may be proper to acquaint you of the benefit which I have already received from the Æther. First, I strictly observed the Doctor's rules in his book of advice, then immediately applied the Æther. After I have given you the particulars of my state of health, you will be convinced of the benefit which I have received. I was entirely worn to a shadow with the violence of the cough, and so excessively sore in my inside, that I could not swallow a single drop of any sort of wine without mixing it in water, otherwise it would burn me like the strongest dram. I have been
hoarse

hoarse for two years, so that you could scarce hear me speak. My skin was very yellow, and I was so very weak, that I could not sit on horseback. But now, thank God, I am so well recovered, that I can drink a glass or two of wine a day, without any symptoms of soreness. My cough is greatly abated, and my voice infinitely better. I gain flesh and strength, so that I am able to ride eight or ten miles a day without fatigue, and my complexion as well as ever. I most earnestly entreat, that you will send your answer by the return of the post, as I would by no means neglect the continuation of the *Æther*.

I am, Sir,

Your most obedient,

Please to direct for
me at Kintbury,
near Hungerford,
Berks.

humble Servant,

JOHN SHERMAN, jun.

N. B. The last two phials were, I believe, had of you on Monday last, with four bottles of Turlington's drops at the same time.

Dec. 2, 1768.

S I R;

S I R,

I AM infinitely obliged to you for your kind letters, and return many thanks for the trouble you have had on my account. Since my last to you, I have made use of part of one of the other bottles, and find it to have the same effect as the former. I see, in your abstract of Dr. Stern's letter, that he is desirous of publishing the benefit which I have received from his Æther. As it will oblige the Doctor, I certainly shall have no objection, and likewise think, that such an excellent remedy should not be kept in oblivion, but made known for the benefit of mankind. I think it will be proper to acquaint Dr. Stern, that the first time, I tried the Æther six weeks successively, three times a day; then omitted it for some time; then again, a second trial for six weeks; and then but twice a day, which is now completed; therefore shall defer making use of any more for some time. I make no doubt but the Doctor will insert my case in more papers than one; therefore think it will be proper to acquaint him, that I have from London, the Craftsman, or Say's Weekly Journal. The paper at the principal inns at Hungerford is the London Evening-Post.

Post. I would likewise inform him, as there are others of my name, for fear of mistake he may mention, (as I am in no business) son of John Sherman, Esq. of Hungerford.

I am, Sir,

Your most obedient,

humble servant,

Kentbury, Dec. 16, 1768.

JOHN SHERMAN.

F I N I S.